

wherein said first raster elements each have an x-direction and a y-direction with an aspect ratio, and

wherein at least two of said first raster elements have aspect ratios of different magnitude.

2. (Amended) The illumination system according to claim 1, further comprising a second optical element, which is divided into second raster elements,

wherein a second raster element is assigned to a first raster element, and

wherein at least one second raster element has an anamorphic optical effect.

3. (Amended) The illumination system according to claim 2, wherein the illumination system defines a field,

wherein said field is illuminated in an object plane of the illumination system, and

wherein at least some of said second raster elements have an anamorphic optical effect,

which is selected such that an aspect ratio of images of said first raster elements is substantially the same in said object plane, independent of said aspect ratio of said first raster elements.

4. (Amended) The illumination system according to claim 1, wherein at least one of said at least two first raster elements with aspect ratios of different magnitude has an anamorphic optical effect.

5. (Amended) The illumination system according to claim 1, wherein said at least two first raster elements with aspect ratios of different magnitude have an isotropic optical effect.

6. (Amended) The illumination system according to claim 5, wherein said first raster elements have an isotropic optical effect.

7. (Amended) The illumination system according to claim 1, wherein said first raster elements that have an anamorphic optical effect are of a shape selected from the group consisting of cylinders and toroids.

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8. (Amended) The illumination system according to claim 2, wherein said second raster elements that have an anamorphic optical effect are of a shape selected from the group consisting of cylinders and toroids.

9. (Amended) The illumination system according to claim 1, wherein all of said first raster elements are completely illuminated in said first plane.

10. (Amended) The illumination system according to claim 1, further comprising a collector unit, which illuminates said first plane with said first raster elements.

11. (Amended) The illumination system according to claim 1, further comprising at least one field mirror.

12. (Amended) The illumination system according to claim 2, further comprising at least one field mirror, wherein said second raster elements and said at least one field mirror image said assigned first raster elements in an object plane of the illumination system.

13. (Amended) The illumination system according to claim 1, wherein said first raster elements are rectangular.

14. (Amended) The illumination system according to claim 1,
wherein the illumination system defines a field to be illuminated in an object plane of the
illumination system, and
wherein said field represents a segment of a ring field.

15. (Amended) A projection exposure system for microlithography, comprising:
an illumination system according to claim 1 with an exit pupil, which partially collects an
emission produced by a light source and further guides it to illuminate a field in an
object plane of the illumination system;

a pattern-bearing mask, which lies in said object plane;
a projection device, with an entrance pupil, which coincides with an exit pupil of the
illumination system, wherein said projection device images a lighted portion of said
pattern-bearing mask in an image field of said projection device; and
a light-sensitive substrate, which lies in a plane of said image field.

16. (Amended) A method for producing microelectronic components, comprising using the
projection exposure system according to claim 15.

Please add the following claims.

17. (New) An illumination system, comprising:
an optical element having a first raster element and a second raster element,
wherein said first raster element has a first aspect ratio,
wherein said second raster element has a second aspect ratio, and
wherein said first aspect ratio is not equal to said second aspect ratio.

18. (New) An illumination system for radiation wavelengths of ≤ 193 nm, comprising an
optical element having a first raster element and a second raster element of different sizes.